

## Exploring the role of Public Relations and Communication in Museums. A Science Mapping Analysis in Web of Science and Scopus

Explorando el papel de las Relaciones Públicas y la Comunicación en los Museos. Un análisis de la cartografía científica en Web of Science y Scopus

Ainhoa del Pino Rodríguez-Veras<sup>1</sup> | [ORCID ID](#)

[ainhoarodriguez@uma.es](mailto:ainhoarodriguez@uma.es)

Universidad de Málaga, Spain

Carlos de las Heras- Pedrosa<sup>2</sup> | [ORCID ID](#)

[cheras@uma.es](mailto:cheras@uma.es)

Universidad de Málaga, Spain

Jairo Lugo-Ocando<sup>3</sup> | [ORCID ID](#)

[j.lugocando@sharjah.ac.ae](mailto:j.lugocando@sharjah.ac.ae)

Universidad de Sharjah, United Arab Emirates

Recepción: 15/05/2023 Revisión: 06/06/2023 Aceptación: 26/06/2023 Publicación: 30/06/2023

<https://doi.org/10.5783/10.5783/revrrpp.v13i25.810>

### Abstract

Museums are born from the need to preserve historical heritage in a space where they can research and disseminate knowledge. The evolution of museum communication, together with the use of new technologies or new forms of communication, has been an unprecedented milestone between museums and their public, as it allows them to establish interactions, contributing to the development of a greater knowledge of the cultural demands of museum visitors. Social media, blogs or mobile social media fall within this new way of communicating, being used by museums to expand their dissemination and publicize their activities. The use of these networks has created wider spaces and more open museums. Therefore, social media are already being used by museums to expand their dissemination and publicize their activities, this being a clear use of what is known as "museum 2.0". This research work carries out a bibliometric study since 1976, the first year in which publications in this field were detected. Sixty-four publications have been identified in the databases, Web of Science Core Collection and Scopus, showing a mapping of authorship networks, citation and co-occurrence of keywords or scientific interrelation between organizations and countries.

---

<sup>1</sup>Ainhoa del Pino Rodríguez-Veras is PhD candidate in the Inter-University Doctorate Programme in Tourism at the University of Malaga. ORCID ID: <https://orcid.org/0009-0009-7638-4120>.

<sup>2</sup> Carlos de las Heras-Pedrosa is professor at the Audiovisual Communication and Advertising Department in the University of Málaga. ORCID ID: <https://orcid.org/0000-0002-2738-4177>. Corresponding author.

<sup>3</sup> Jairo Lugo-Ocando is dean of the College of Communication and professor at the University of Sharjah in UAE. ORCID ID: <https://orcid.org/0000-0002-9533-2088>

**Keywords:** Public relations, museums, communication, social media, bibliometric analysis.

### **Resumen**

Los museos nacen de la necesidad de conservar el patrimonio histórico en un espacio donde poder investigar y difundir conocimiento. La evolución de la comunicación de los museos, junto con el uso de las nuevas tecnologías o nuevas formas de comunicación, han supuesto un hito sin precedentes entre los museos y sus públicos, pues les permite establecer interacciones, contribuyendo al desarrollo de un mayor conocimiento de las demandas culturales de los visitantes de los museos. Las redes sociales, los blogs o los medios sociales móviles entran dentro de esta nueva forma de comunicar, siendo utilizadas por los museos para ampliar su difusión y dar a conocer sus actividades. El uso de estas redes ha creado espacios más amplios y museos más abiertos. Por ello, los medios sociales están siendo ya utilizadas por los museos para ampliar su difusión y dar a conocer sus actividades, siendo esto un uso claro de lo que se conoce como “museo 2.0”. Este trabajo de investigación lleva a cabo un estudio bibliométrico desde 1976, primer año en que se detectan publicaciones en este ámbito. Se han identificado 64 publicaciones en las bases de datos, Web of Science Core Collection y Scopus mostrándose un mapeo de redes de autoría, citación y co-ocurrencia de palabras clave o la interrelación científica entre organizaciones y países.

**Palabras claves:** Relaciones públicas, museos, comunicación, medios sociales, análisis bibliométrico.

### **Summary**

1. Introduction. 2. Theoretical framework. 3. Methodology. 4. Results. 5. Discussion and conclusions. 6. References.

### **Sumario**

1. Introducción. 2. Marco teórico. 3. Metodología. 4. Resultados. 5. Discusión y conclusiones. 6. Referencias.

## **1. INTRODUCTION**

As stated by UNESCO (2023), in recent decades museums have become cultural icons in many cities and a powerful magnet for attracting cultural tourism, making a fundamental contribution to society (Van Riel, 2021). Internet and social media research has increased in recent years in the field of public relations as a result of the opportunity for organizations to communicate with their publics (Capriotti et al., 2016; Guillory & Sundar, 2014).

The evolution of museum communication, together with the use of new technologies or new forms of communication, has meant a change in the relationship with their publics. Two-way communication is fundamental in the relationship between museums and their publics, as it allows for interactions between the pair (Capriotti & Pardo Kuklinski, 2012), which contributes to a persistent and continuous relationship. It can be stated that the relationships between the museum and its various publics depend to a great extent on the public relations profile (Capriotti et al., 2016).

Social media are part of this new way of communicating, being used by museums to expand their dissemination and publicize their activities. The use of these networks has created wider spaces and more open museums.

The temporary lockdown of museums, caused by the COVID-19 pandemic, led museums to define as their main strategy the dissemination of culture, knowledge and entertainment to the population through online media (de las Heras-Pedrosa, Iglesias-Sánchez, et al., 2022). The most popular among museums around the world were educational and entertainment resources under the hashtag #MuseumUnlocked (International Council of Museums, 2020).

As a consequence of this, currently, digitalization processes have accelerated and social media are being used by museums to expand their dissemination and publicize their activities by being within the reach of almost the entire population (Raimo et al., 2021), this being a clear use of what is known as museum 2.0.

The future of a field of research depends on a thorough analysis of the past and must be built on the basis of previous research (Benavides-Velasco et al., 2013). Consequently, the aim of this paper is to provide a comprehensive and critical review and analysis of the literature on Public Relations and Museums: the evolution of scientific activity, current trends in authorship, topics and future research agenda setting.

## **2. THEORETICAL FRAMEWORK**

Today, we live in the age of big data and culture, and technology is a key tool for cultural exchange. As technology evolves, so does the way we relate to culture and the way we define ourselves as a society (Poulopoulos & Wallace, 2022). For that same reason, over time, museums have evolved and have become important cultural agents with a great responsibility in the preservation of cultural and historical heritage at the national and international level, as well as in the cultural awareness and education of society (Ayala et al., 2020).

Nowadays, the role of museums goes beyond being mere repositories of collections and exhibits, for through it they convey a message about what is relevant in society. In fact, since their conception, museums have been seen as a tool for education (de las Heras-Pedrosa, Iglesias-Sánchez, et al., 2022) and the formation of large audiences (Johnson & Sink, 2013).

Museums have a new commitment to society and seek to expand their public and contribute to the progress of the community. For this reason, the management of communication and relationships with the public is essential to fulfill this new mission, as the relationships between museums and their publics are as important as the collections they hold (Capriotti, 2013). The relationship between museums and their public is shifting towards more interactive and collaborative forms through social media, making use of museum technologies, moving from being an informational tool to a conversational instrument (Capriotti & Pardo Kuklinski, 2012). Technology has become a fundamental means of communicating and disseminating heritage, and cultural organizations need to define their presence in this digital world (Poulopoulos & Wallace, 2022).

Social media, blogs or mobile social media have developed peer-to-peer communication with an increasingly participative, but above all credible audience (de las Heras-Pedrosa et al.,

2019). Social media have arguably led to a democratization of communication (de las Heras-Pedrosa et al., 2019), altering the broader context of public participation by enhancing two-way communication (Arnaboldi & Coget, 2016; Black, 2018) and the creation of collaborative relationships between organizations and their publics.

It fosters a more interactive relationship with its public, allowing a higher degree of audience participation and engagement (de las Heras-Pedrosa, Iglesias-Sánchez, et al., 2022). This can be achieved through the use of interactive resources and platforms that enable content management and interaction management, which are two key aspects of dialogic communication (Capriotti & González Herrero, 2017). Currently, dialogic communication (Capriotti et al., 2019) and interactivity are considered to be key elements in the development of Museum 2.0, and in the use of social media as tools to establish closer relationships with the publics (Agostino et al., 2020; Capriotti & González-Herrero, 2013; Raimo et al., 2021).

Based on the above, two key aspects to understand dialogic communication stand out: content management and interaction management (Capriotti & Pardo Kuklinski, 2012).

A clear example where this type of dialogic communication can be seen reflected is in social media. Social media are considered by communication managers as one of the main communication channels and are nowadays part of Museum 2.0 (Capriotti et al., 2016; Mas et al., 2021), which has led museums to use them to expand their dissemination and publicize their activities. These tools have created a different concept in communication, especially in museums, allowing them to be much more open to society (Amanatidis et al., 2021; Losada-Díaz & Capriotti, 2015).

Museums should be seen as communicators that adopt strategies with their publics and, through the strategic use of communication and public relations, can gain a valuable asset to manage long-term relationships with their visitors (Brown Jarreau et al., 2019; Capriotti et al., 2016). This can be related to what was mentioned above, where it is known that nowadays the relationship between museums and their different publics is as important as the collections they hold (Rusillo, 2019). For this reason, museums are using communication and public relations tools and techniques to achieve greater visibility and develop their audiences (Najda-Janoszka & Sawczuk, 2021). Public relations and marketing are complementary functions in nonprofit organizations, such as museums. The primary function of marketing is to influence behavior, while public relations is responsible for shaping, maintaining or changing public attitudes, which in turn influences behavior toward the organization or its products (Gürel & Kavak, 2010).

Public relations have evolved in its mission and function. Previously, its primary objective was to influence the beliefs and attitudes of the publics toward the organization or its products, but today it has shifted to a mission more focused on building and maintaining mutually beneficial relationships between the organization and its key publics (Banning & Schoen, 2007). The primary function of public relations in museums is to foster dialogue with various constituencies whose interest is vital to the museum's ability to achieve its objectives. In many cases public relations has come to be seen as a management function that helps marketing to be effective by providing the conditions, atmosphere and environment through generating news, attention and visibility (Davis, 2013; Gürel & Kavak, 2010).

From a marketing perspective, communication and public relations are considered promotional tools to disseminate information about the cultural products and services offered by museums and thus obtain a defined positioning (Fernández-Hernández et al., 2021). Therefore, theoretical and professional models of corporate communication (Biraglia & Gerrath, 2021; Jung, 2015) and public relations offer a variety of proposals related to strategic communication planning. Both models have a similar strategic planning structure, in which audiences are researched, communication strategies are planned, actions are implemented and evaluated (Capriotti, 2013; Gürel & Kavak, 2010).

The importance of public relations can be seen in the fact that they are no longer limited to communicating a unidirectional and persuasive message, instead they focus on promoting a bidirectional dialogue with the various stakeholders, which allows them to better understand their needs, interests and expectations. (Caerols-Mateo et al., 2017). Likewise, the concept of relationship implies an interdependence between the organization and its publics, in which the actions of one can affect the well-being of the other (Zeler & Capriotti, 2017). Therefore, the management of public relations becomes an essential tool to guarantee the satisfaction and fidelity of key publics, and therefore, the success and sustainability of the organization in the long term (Banning & Schoen, 2007; de las Heras-Pedrosa, Iglesias-Sánchez, et al., 2022)

### **3. METHODOLOGY**

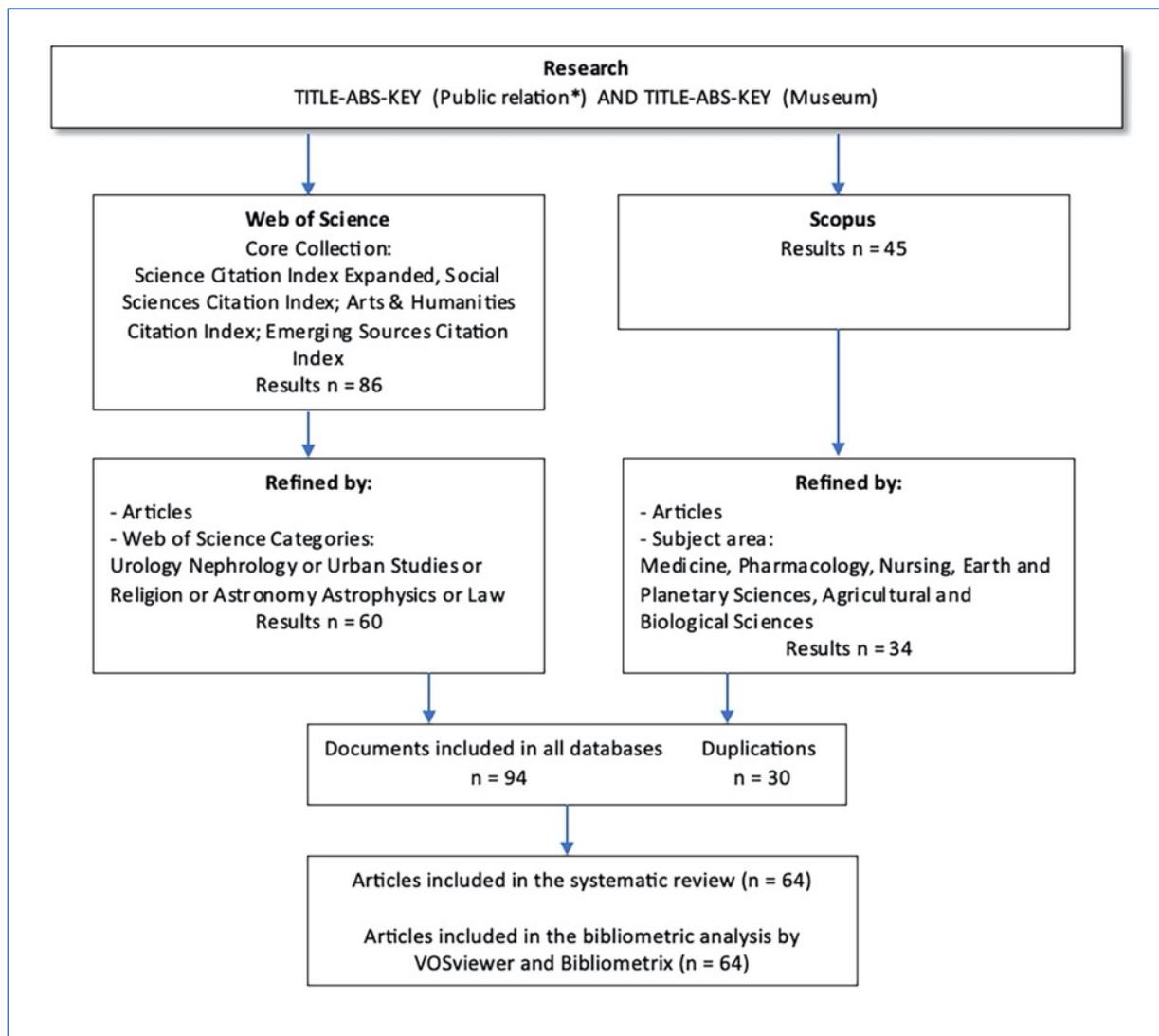
The bibliometric analysis was based on scientific publications related to the two key axes "Public relations" and "Museum". The research was carried out using scientometric tools and indicators (Chen, 2017; de las Heras-Pedrosa, Jambrino-Maldonado, et al., 2022). The databases chosen are Web of Science (WoS) Core Collection and Scopus, which are considered reference sources for scientific analysis (Martínez et al., 2015; Sánchez-Núñez et al., 2020) and which accurately and reliably collect the records of journals indexed by impact. The keywords and search string are formulated according to the logic of the Core Collection of WoS and Scopus databases. The flow chart in Figure 1 shows the procedure for the selection of 64 articles that meet all the established conditions

There are a large number of tools to perform bibliometric studies and analyze selected articles. For this study it was used two free software's Bibliometrix (Aria & Cuccurullo, 2017) that allows to perform comprehensive scientific mapping analysis and VOSviewer, version 1.6.19 as a methodological tool to build and visualize networks and to elaborate bibliometric maps that facilitate the global understanding of the semantic and conceptual structure of the research field (Hou & Yu, 2023; Maryanti et al., 2023).

The study of bibliometric networks with Bibliometrix and VOSviewer extracted visual representations of museums related to public relations. Specifically in relation to: authorship, publications, co-occurrence of keywords used by authors in their articles, co-occurrence of authors, universities and research centers or geographic areas where most production is generated (Handayani et al., 2022; Rando-Cueto et al., 2023; van Eck & Waltman, 2010).

With this methodology, the scientific community will obtain a quantitative and visual representation of the articles published in the field of study, thus providing a fundamental tool for the continuation of these lines of research (Aria & Cuccurullo, 2017; Jambrino-Maldonado et al., 2022; van Eck & Waltman, 2017).

Figure 1. Flowchart of the bibliographic search and selection process

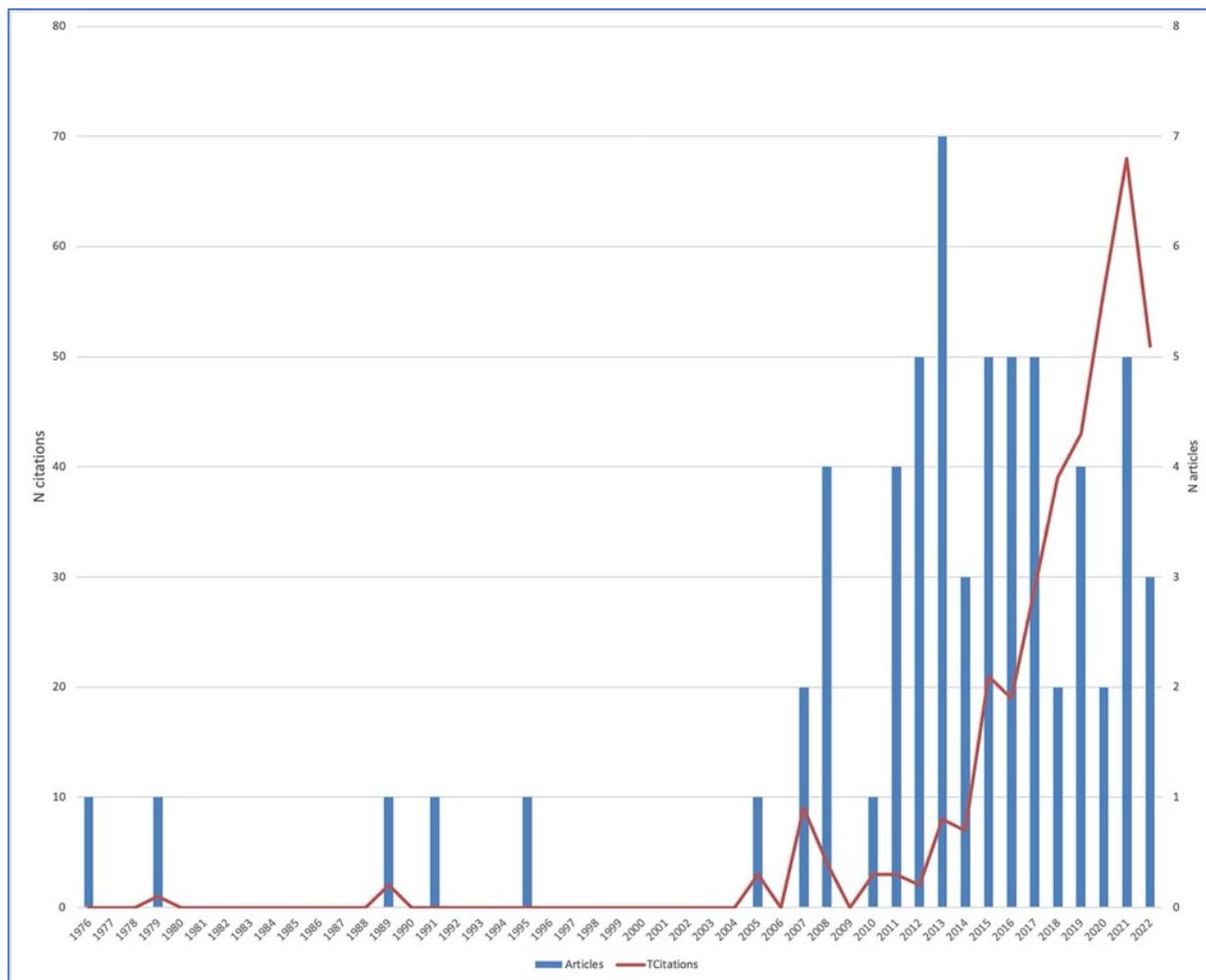


Source: own elaboration

#### 4. RESULTS

The articles obtained related to museums and public relations in the Core Collection databases of Web of Sciences and Scopus amount to a total of 64 articles. In 1976 the first article meeting the search criteria was published. It is not until 2011 with four papers when there is an annual consistency in the publications; although it is not really a very studied topic in the field of public relations as the maximum number of manuscripts is in 2013 with seven articles, to drop again to five or four studies per year. In no case can this line of research be considered solid in the field of public relations knowledge. Figure 2 represents the evolutionary curve of citations received by the articles analyzed. It can be observed that it is from the year 2014 when the increase in citations grows exponentially. Having its maximum exponent with 69 citations in 2021.

Figure 2. Times Cited and Publications Over Time



Source: Web of Sciences and Scopus. Own elaboration

#### 4.1. Citation report

The citation report (Table 1) shows the main data of the study analyzed. The 64 articles obtained 464 citations with an H index of 13. The average number of citations per article is over 7, which indicates that despite the low number of publications, the subject is of interest to the scientific community.

Table 1. Citation report

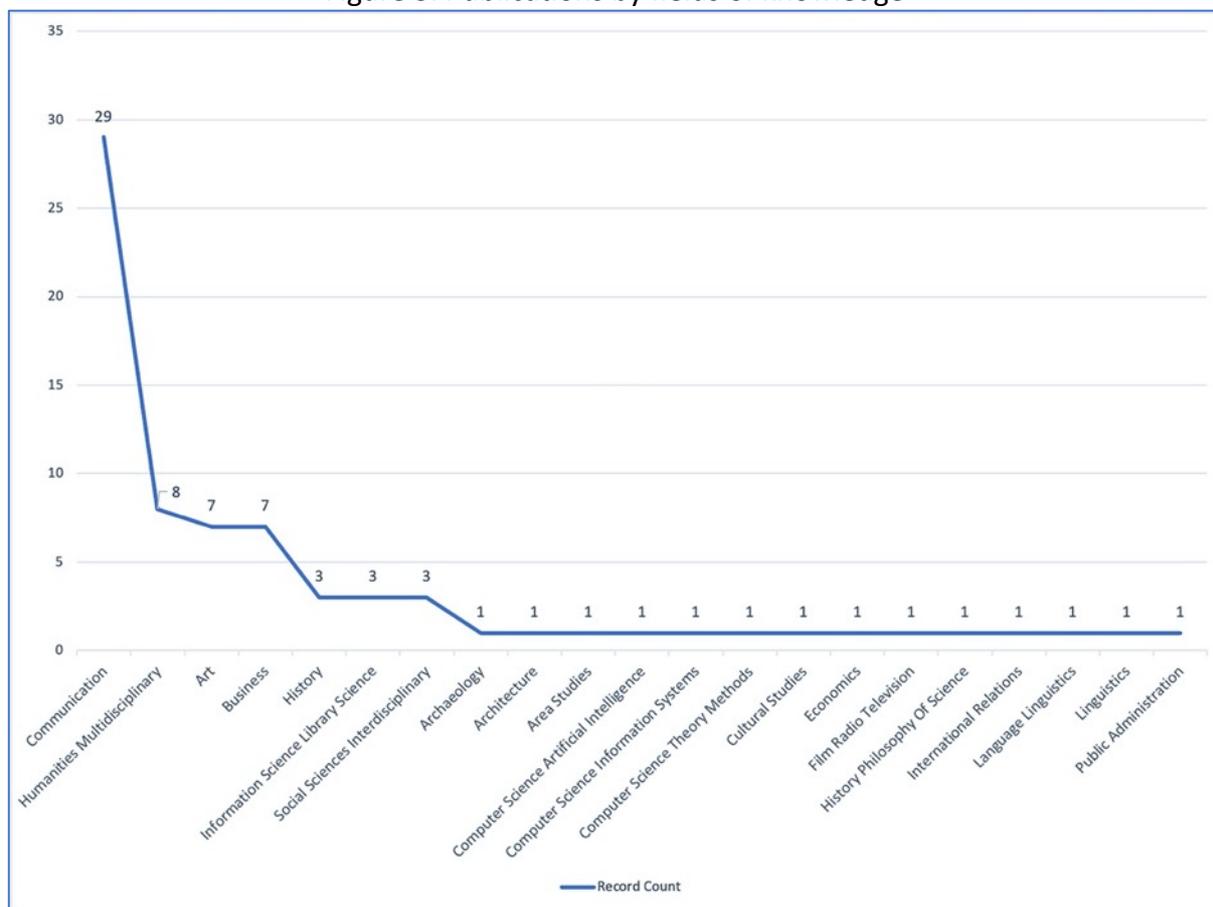
Citation report	
Publications	64
Times cited	464
Citation average per item	7,14
H-Index	13

Source: Web of Sciences, Scopus. Own elaboration

Figure 3 shows the distribution of articles by the main areas of knowledge in which the Core Collection of WoS database classifies its records. In this case, the most important category of

the selected articles is significantly Communication with 29 manuscripts, followed by Humanities Multidisciplinary, Art and Business.

Figure 3. Publications by fields of knowledge



Source: Web of Sciences, Scopus. Own elaboration

The articles published were mainly published in high quality scientific journals, most of which are in quartiles one and two according to the Journal Citation Indicator (JCI) of Clarivate and the CiteScore Rank of Scopus. Table 2 and Figure 4 show the relationship between the 10 most relevant scientific journals. The ranking is led by the journals Public Relations Review and Revista Internacional de Relaciones Públicas, with a clear public relations profile, followed by Communication and Society-Spain and Museum Management and Curatorship in number of articles published. The journal Museum News is currently out of print. The journals with the highest Citation average per item are Public Relations Review with 23.25 and Palabra Clave with 17.00.

Table 2. Journal Impact Report

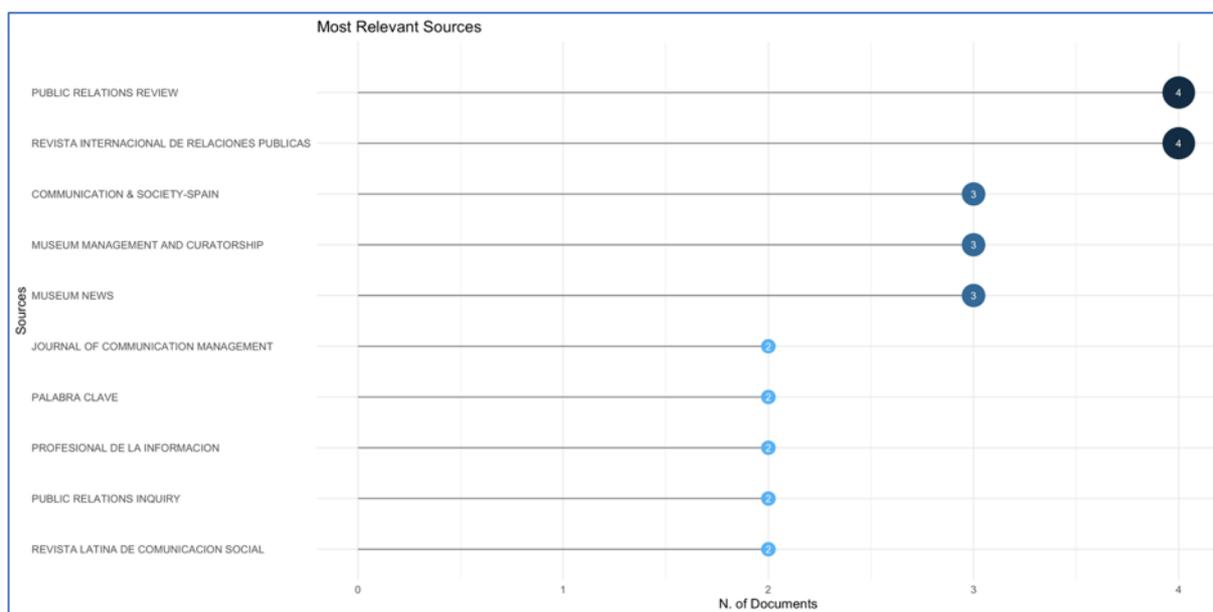
Journal	Nº Article	Citations	Citation average	Rank by Journal Citation	CiteScore Rank 2021*
---------	------------	-----------	------------------	--------------------------	----------------------

			e per item	Indicator 2021* (Clarivate)	(Scopus )
Public Relations Review	4	93	23.25	Q1	Q1
Revista Internacional de Relaciones Publicas	4	18	4.50	Q4	-
Communication and Society-Spain	3	14	4.67	Q3	Q2
Museum Management and Curatorship	3	15	5.00	Q1	Q1
Museum News	3	1	0.33	-	-
Journal of Communication Management	2	11	5.50	Q2	Q1
Palabra Clave	2	34	17.00	Q3	Q2
Profesional de la Información	2	14	7.00	Q1	Q1
Public Relations Inquiry	2	13	6.50	Q2	Q2
Revista Latina de Comunicación Social	2	27	13.50	Q2	Q2

\* last year available.

Source: Web of Sciences, Scopus. Own elaboration

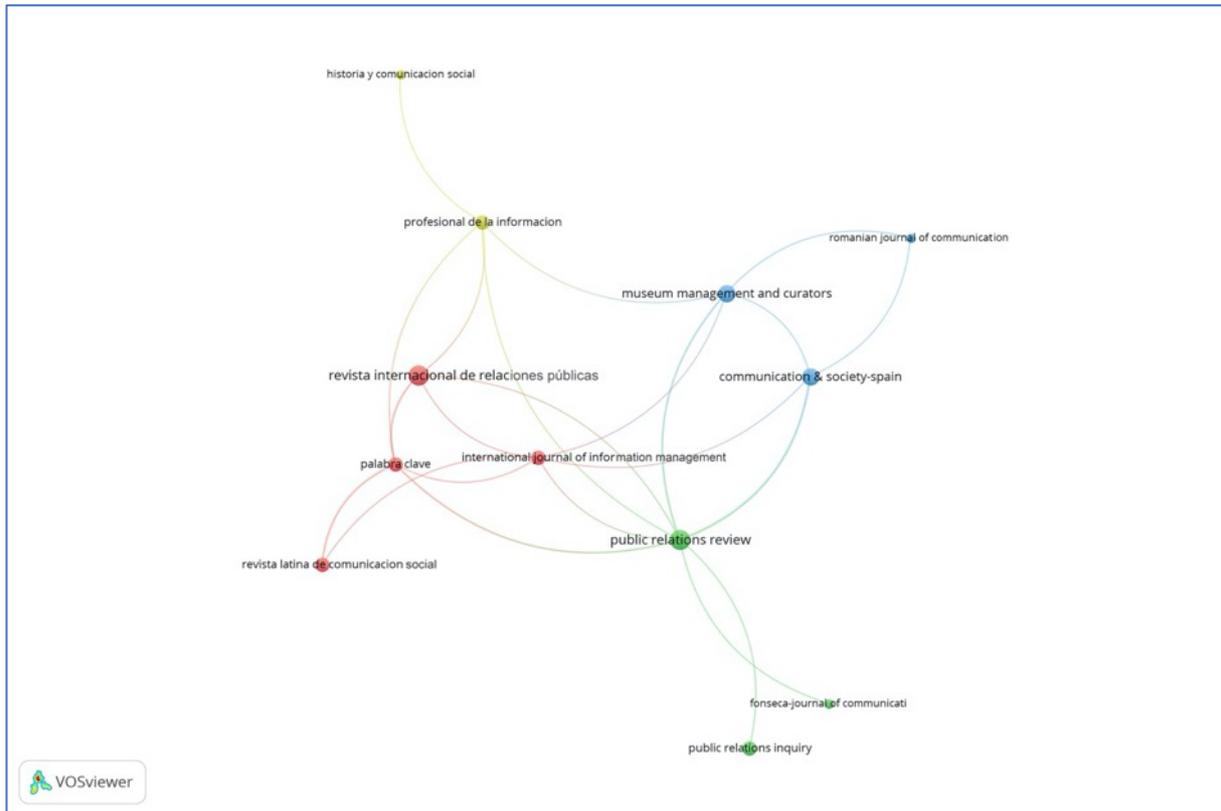
Figure 4. Most relevant sources



Source: Web of Sciences, Scopus and VOSviewer. Own elaboration

With respect to the type of analysis and focusing on the relationship between citations and journals, the correlation of citations between the journals for this research was obtained with the VOSviewer program. They have been grouped into four clusters represented by colors. The relevance of the cluster of the Revista Internacional de Relaciones Públicas, in red, is confirmed. The cluster headed by Public Relations Review, in green, and the cluster of Museum Management and Curators, in blue. On the other hand, Public Relations Review is the journal with the most link strength (12) and serves as a link between all the clusters with eight links (Figure 5).

Figure 5. Total strength of citation links to other journals



Source: Web of Sciences, Scopus and VOSviewer. Own elaboration

#### 4.2. Keyword analysis

The keywords chosen by researchers for their manuscripts, as well as the analysis of co-occurrence through its visual representation of term networks provided by VOSviewer, allows determining the predominant themes in published research.

With the keywords of the 64 articles selected from the Core Collection of WoS and Scopus databases that meet the selection criteria, Figure 6 is obtained. The most representative keywords are the search terms Museum and Public Relations, but the relationship of these with others such as Social Media, Media Relations, Online Pressroom or Web 2.0 can be verified, clearly showing the importance of the research carried out on public relations in museums and this new way of reaching the public through social media. Other relevant terms are Communication, Conversation/Interactivity and Corporate Communication or Corporate Reputation determining that museums are currently very sensitive to the image of the museum and to the realization of a bidirectional communication.

Figure 6. Map of keyword co-occurrence





Table 3. Articles with the highest number of citations

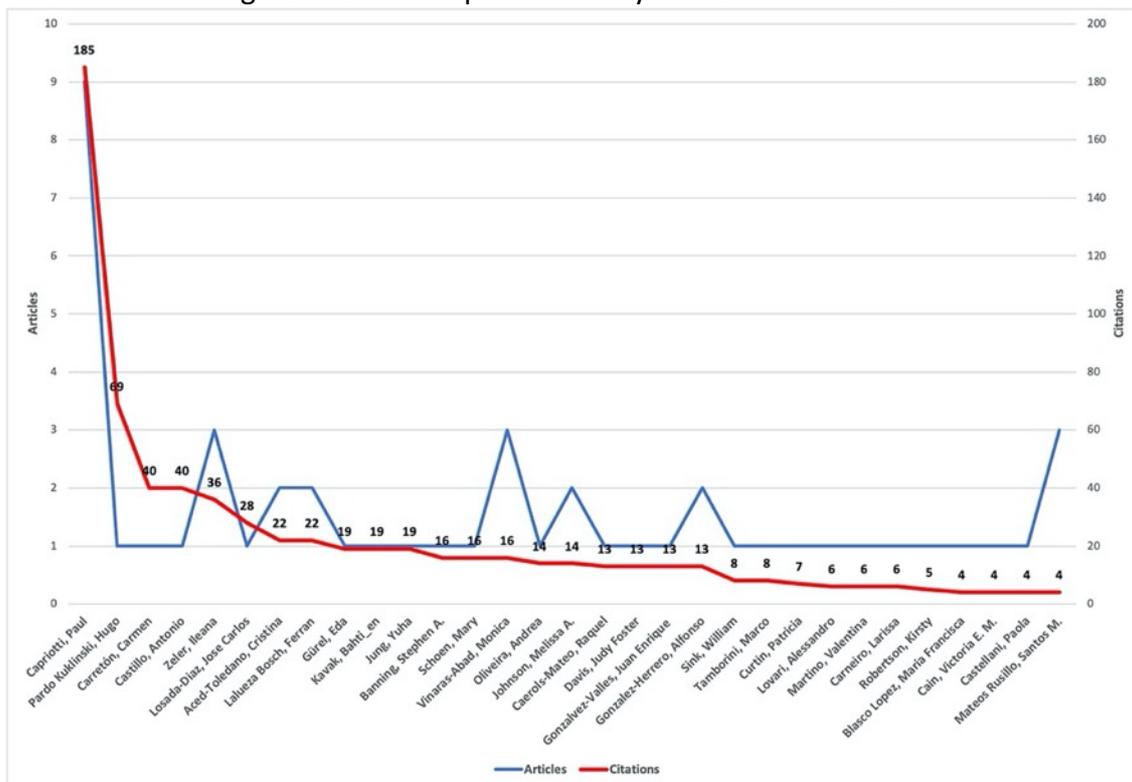
Authors-Year	Articles	Sources	WoS		Scopus	
			Rank by JCI	TC	CiteScore Rank	TC
(Capriotti & Pardo Kuklinski, 2012)	Assessing dialogic communication through the Internet in Spanish museums	Public Relations Review	Q1	69	Q1	70
(Capriotti et al., 2016)	Testing the level of interactivity of institutional websites: From museums 1.0 to museums 2.0	International Journal of Information Management	Q1	40	Q1	34
(Losada-Díaz & Capriotti, 2015)	The Communication of Art Museums in Facebook: Comparison of Key International and Spanish Institutions	Palabra Clave	Q3	28	Q2	27
(Jung, 2015)	Diversity Matters: Theoretical Understanding of and Suggestions for the Current Fundraising Practices of Nonprofit Art Museums	Journal of Arts Management Law and Society	Q1	19	Q1	20
(Gürel & Kavak, 2010)	A conceptual model for public relations in museums	European Journal of Marketing	Q2	19	Q1	18
(Caerols-Mateo et al., 2017)	Social networking sites and museums: Analysis of the Twitter campaigns for International Museum Day and Night of Museums	Revista Latina de Comunicación Social	Q2	13	Q2	17
(Banning & Schoen, 2007)	Maximizing public relations with the organization-public relationship scale: Measuring a public's perception of an art museum	Public Relations Review	Q1	16	Q1	15
(Davis, 2013)	Realizing marketplace opportunity: How research on the black consumer market influenced mainstream marketers, 1920-1970	Journal of Historical Research in Marketing	Q4	13	Q4	14
(Capriotti & González-Herrero, 2013)	Managing media relations in museums through the Internet: a model of analysis for online pressrooms in museums	Museum Management and Curatorship	Q1	10	Q1	8
(Capriotti, 2013)	Managing Strategic Communication in Museums. The case of Catalan museums	Communication and Society-Spain	Q3	9	Q2	9

Source: Web of Sciences, Scopus and VOSviewer. Own elaboration

Figure 9 represents the scientific production by authors and citations. As previously mentioned, Paul Capriotti is the first, followed by Hugo Pardo Kuklinski in an article co-authored with Paul Capriotti (Capriotti & Pardo Kuklinski, 2012).

The third position in citations goes to Carmen Carretón and Antonio Castillo with 40 citations in another article co-authored with Paul Capriotti (Capriotti et al., 2016) (Figure 9).

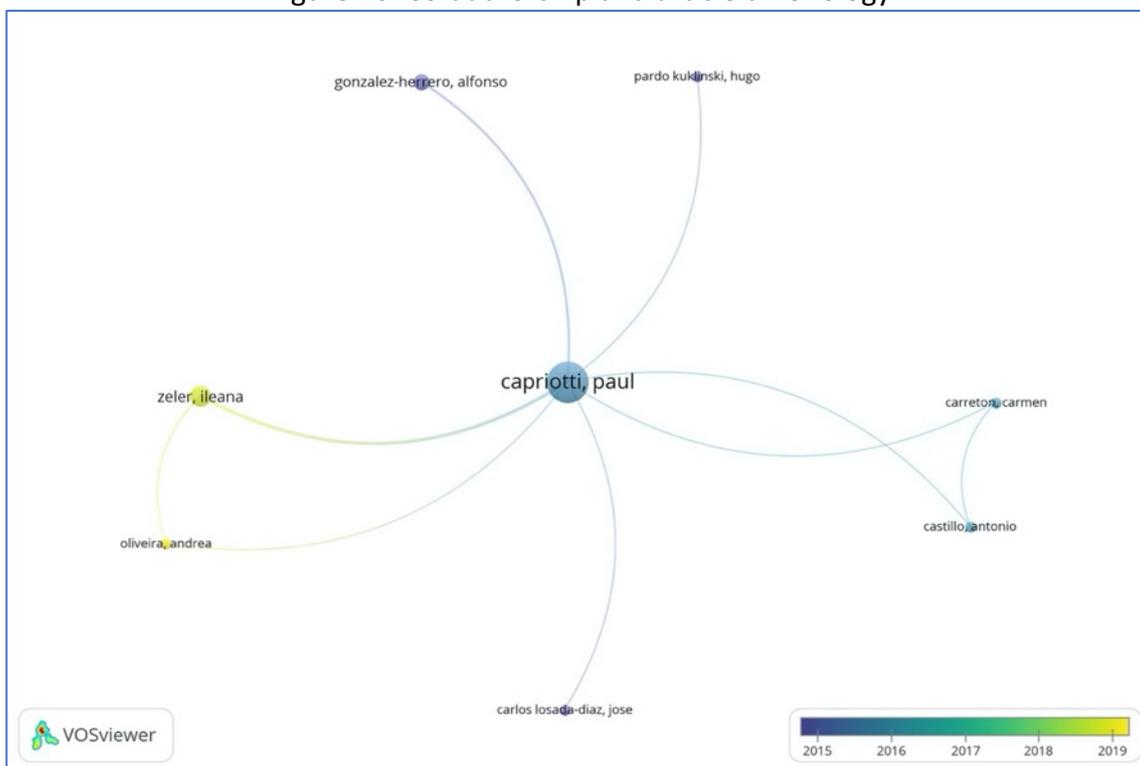
Figure 9. Scientific production by authors and citations



Source: Web of Sciences, Scopus. Own elaboration

In short, as shown in Figure 10, Paul Capriotti is the main co-authorship of the subject under study.

Figure 10. Co-authorship and article chronology

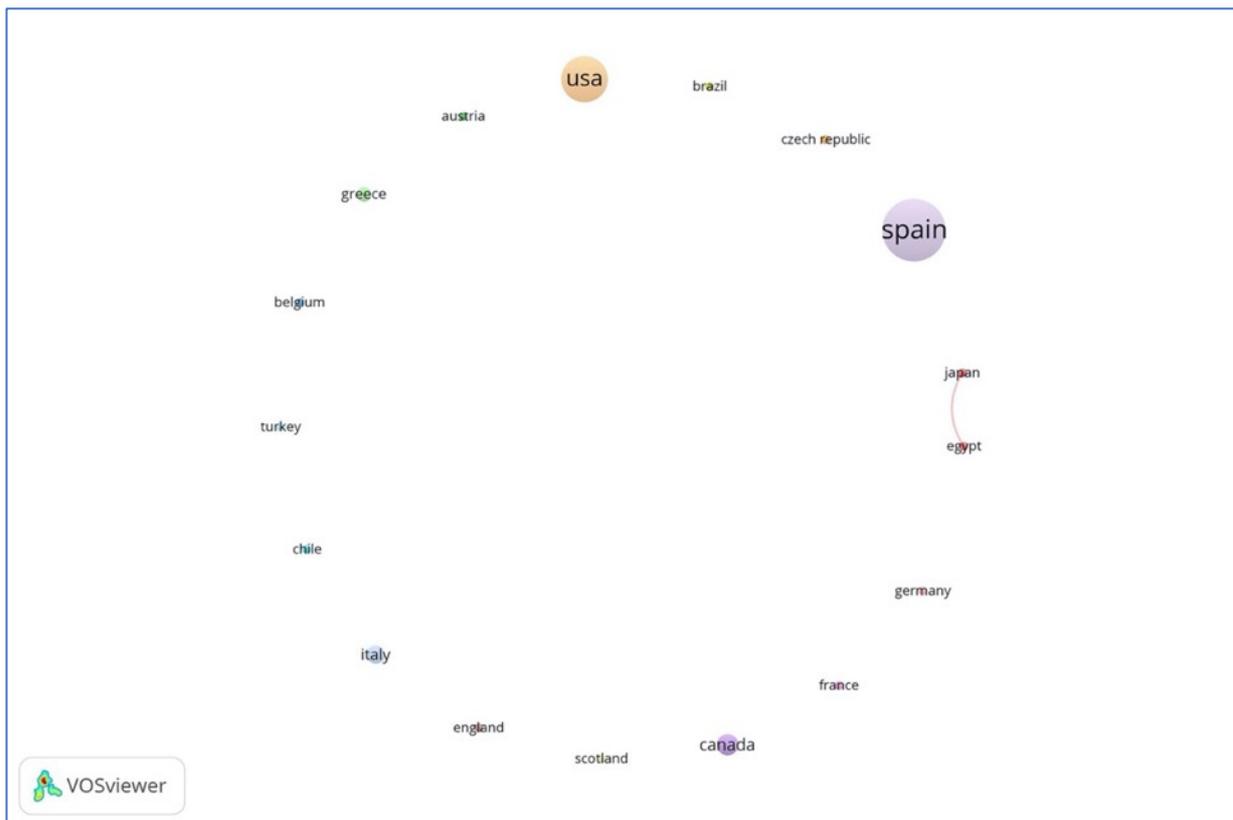


Source: Web of Sciences, Scopus and VOSviewer. Own elaboration

#### 4.4. Analysis of Main Co-Authorships-Countries/Organisations and Number of Records

From the analysis by countries with the greatest scientific production and links between them (Figure 11), Spain stands out with 23 documents and 235 citations, the USA with 14 articles and 78 citations and Canada with 4 manuscripts and 13 citations. This figure shows the networks between countries. Although normally there are relationships between them, in this case the only countries whose authors write jointly are Japan and Egypt with one article and no citations. In the rest of the countries there is no joint scientific production between nations. This implies that there are no scientific collaboration networks between countries.

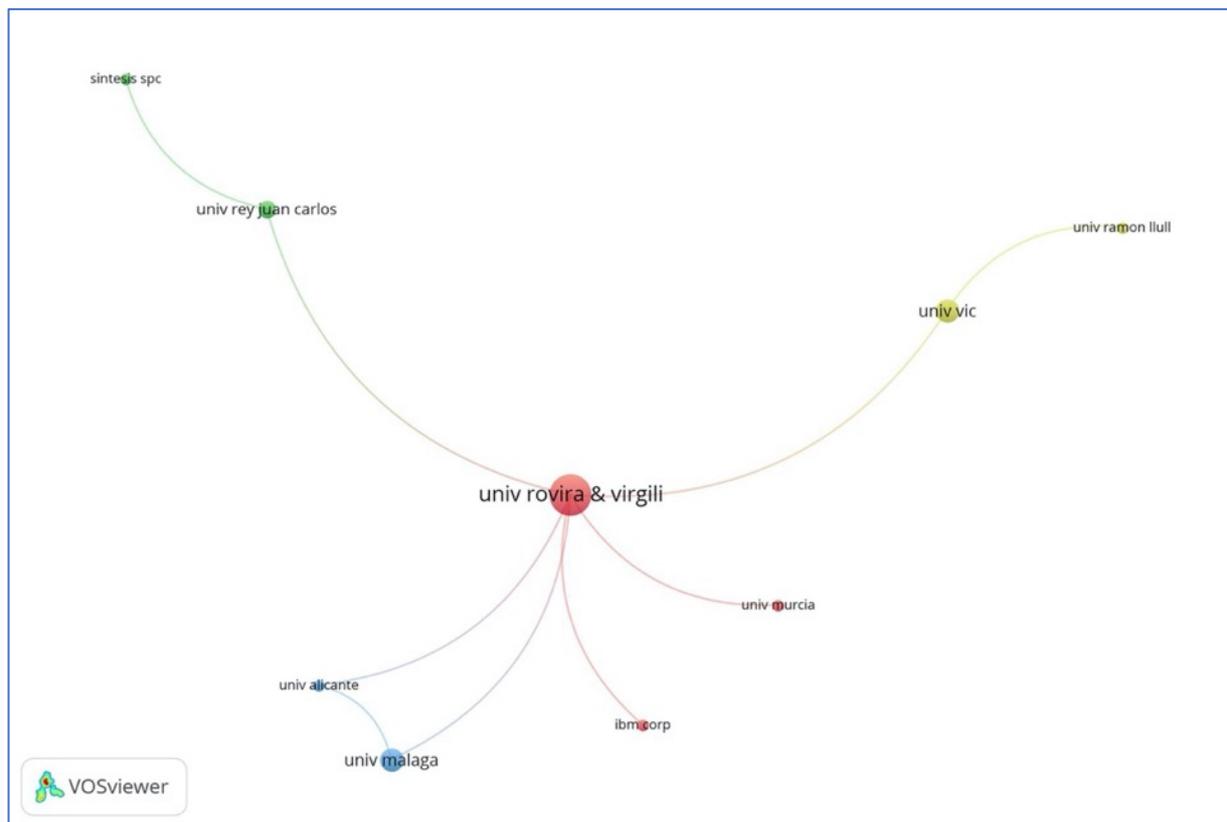
Figure 11. Countries co-occurrence map



Source: Web of Sciences, Scopus and VOSviewer. Own elaboration

With respect to the organizations, Figure 12 shows the joint work between institutions with greater linking strength among them. Thus, the interrelation between universities can be observed. The cluster led by the Rovira i Virgili University is the one that serves as a link with the rest of the universities with a link strength of six. It is followed by the University of Malaga and the University of Vic with 3 publications and a link strength of two.

Figure 12. Organisations co-occurrence map



Source: Web of Sciences, Scopus and VOSviewer. Own elaboration

## 5. DISCUSSION AND CONCLUSIONS

After analyzing the study of museums and public relations, it was found that despite being a topic of growing interest for culture, tourism and cities, the field of public relations has not gone into sufficient depth, with only 64 articles published in journals indexed in the Core Collection of WoS and Scopus databases.

Since 2011 and as a result of the emergence of social media as an interactive application of web 2.0, interest in its study and its application to museums began to awaken. Being 2013 the year in which more articles are published.

In line with Capriotti et al. (2016) and Caerols-Mateo et al. (2017) web 2.0 and social media are an opportunity for the management of museum communication untapped until the time of their studies. While according to de las Heras-Pedrosa, Iglesias-Sánchez, et al., (2022) it is from the health crisis caused by COVID-19 that forced museums to close when they become aware of the importance of social media as an essential means of positioning and staying in contact with the public, creating content from their collections (D'Angelo, 2020). Studies by Raimo et al., (2021) confirm that the digital transition of museums accelerated as a result of the pandemic.

Therefore, as a consequence of the pandemic, researchers and professionals agreed that social media are the most useful tools to position themselves as the ideal medium to stay in touch with their public and create content from their collections (D'Angelo, 2020; Ebrahimi et

al., 2020). Educational and entertainment resources are some of the most popular among museums worldwide (International Council of Museums, 2020).

Two-way communication has had a strong impact on museums through social networks (Capriotti et al., 2016). Public relations play a fundamental role in the digital reorganization and dialogic communication (Zeler & Capriotti, 2017) of museum culture, based on a close relationship between the museum and its audiences with a more dynamic discourse between the visitor and the museum narratives (de las Heras-Pedrosa, Iglesias-Sánchez, et al., 2022).

The field of knowledge where the scientific literature is focused is communication followed by humanities, arts and business. With respect to the indexing of the journals used for their publications, most of them are between quartiles 1 and 2 of the Rank by Journal Citation Indicator and the Citescore Rank, Public Relations Review being the journal with the most published articles and the highest citation average per item.

As can be seen in the correlation of keywords and in the word cloud, most of the manuscripts are focused on technological terms such as Social Media, Web 2.0 and Pressroom Online, but also on terms such as Heritage, Education or Corporate communication.

Paul Capriotti of the Rovira i Virgili University is the most relevant author in the field with the highest number of publications and citations. In addition, it can be said that he is the leading reference in research on museums and public relations in Spain as he is co-author and hub with researchers from other Spanish universities. This is evidently reflected in the influence of his university in the organisations co-occurrence map.

With respect to the countries, Spain, followed by the USA and Canada are the ones that publish the most, but a fact to be taken into account is the null relationship between researchers from different countries. It can be stated that the resulting figure is almost unprecedented with clusters with no relationship between them (Figure 11). Evidently this should be a tendency to improve with interrelated research between organizations from different countries.

For the time being, it has not been possible to identify other bibliometric studies that address this area. This paper makes a contribution by analyzing scientific publications that address both research domains Public Relations and Museums. This study is innovative in that it uses a combination of bibliometric techniques and content analysis with an interdisciplinary approach that allows us to comprehensively explore the integration of both research domains.

The limitations of this study include the choice of the Core Collection of WoS and Scopus databases for the bibliometric analysis and the use of the VOSviewer and Bibliometrix tools for data mining and visualization. Other databases such as Google Scholar were discarded in order to obtain higher quality publications.

The state of research on public relations and museums is underrepresented. The importance of museums for the population, cities and cultural tourism and the communicative evolution it has undergone thanks, in this case, to the COVID-19 pandemic are worthy of a greater line of research by public relations scholars.

## 6. REFERENCES

- Agostino, D., Arnaboldi, M., & Lampis, A. (2020). Italian state museums during the COVID-19 crisis: From onsite closure to online openness. *Museum Management and Curatorship*, 35(4), 362–372. <https://doi.org/10.1080/09647775.2020.1790029>
- Amanatidis, D., Mylona, I., Kamenidou, I., Mamalis, S., & Stavrianea, A. (2021). Mining Textual and Imagery Instagram Data during the COVID-19 Pandemic. *Applied Sciences*, 11(9). <https://doi.org/10.3390/app11094281>
- Aria, M., & Cuccurullo, C. (2017). bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics*, 11(4), 959–975. <https://doi.org/10.1016/j.joi.2017.08.007>
- Arnaboldi, M., & Coget, J.F. (2016). Social media and business: We've been asking the wrong question. *Organizational Dynamics*, 45(1), 47–54. <https://doi.org/10.1016/j.orgdyn.2015.12.006>
- Ayala, I., Cuenca-Amigo, M., & Cuenca, J. (2020). Examining the state of the art of audience development in museums and heritage organisations: A Systematic Literature review. *Museum Management and Curatorship*, 35(3), 306–327. <https://doi.org/10.1080/09647775.2019.1698312>
- Banning, S. A., & Schoen, M. (2007). Maximizing public relations with the organization-public relationship scale: Measuring a public's perception of an art museum. *Public Relations Review*, 33(4), 437–439. <https://doi.org/10.1016/j.pubrev.2007.08.001>
- Benavides-Velasco, C. A., Quintana-García, C., & Guzmán-Parra, V. F. (2013). Trends in family business research. *Small Business Economics*, 40(1), 41–57. <https://doi.org/10.1007/s11187-011-9362-3>
- Biraglia, A., & Gerrath, M. (2021). Corporate sponsorship for museums in times of crisis. *ANNALS OF TOURISM RESEARCH*, 88. <https://doi.org/10.1016/j.annals.2020.103056>
- Black, G. (2018). Meeting the audience challenge in the 'Age of Participation'. *Museum Management and Curatorship*, 33(4), 302–319. <https://doi.org/10.1080/09647775.2018.1469097>
- Brown Jarreau, P., Dahmen, N. S., & Jones, E. (2019). Instagram and the science museum: A missed opportunity for public engagement. *Journal of Science Communication*, 18(2), A06. <http://dx.doi.org/10.22323/2.18020206>
- Caerols-Mateo, R., Viñarás-Abad, M., & González-Valles, J. E. (2017). Social networking sites and museums: Analysis of the Twitter campaigns for International Museum Day and Night of Museums. *Revista Latina de Comunicación Social*, 72, 220–234. <https://doi.org/10.4185/RLCS-2017-1162>
- Capriotti, P. (2013). Managing strategic communication in museums. The case of Catalan museums. *Communication and Society*, 26(3), 98–116. <https://doi.org/10.15581/003.26.36068>

- Capriotti, P., Carretón, C., & Castillo, A. (2016). Testing the level of interactivity of institutional websites: From museums 1.0 to museums 2.0. *International Journal of Information Management*, 36(1), 97–104. <https://doi.org/10.1016/j.ijinfomgt.2015.10.003>
- Capriotti, P., & González Herrero, A. (2017). From 1.0 online pressrooms to 2.0 social newsrooms at museums worldwide. *Communication and Society*, 30(2), 113–129. <https://doi.org/10.15581/003.30.2.113-129>
- Capriotti, P., & González-Herrero, A. (2013). Managing media relations in museums through the Internet: A model of analysis for online pressrooms in museums. *Museum Management and Curatorship*, 28(4), 413–429. <https://doi.org/10.1080/09647775.2013.831246>
- Capriotti, P., & Losada-Díaz, J. (2018). Facebook as a dialogic communication tool at the most visited museums of the world. *Profesional de la Información*, 27(3), 642–650. <https://doi.org/10.3145/epi.2018.may.17>
- Capriotti, P., & Pardo Kuklinski, H. (2012). Assessing dialogic communication through the Internet in Spanish museums. *Public Relations Review*, 38(4), 619–626. <https://doi.org/10.1016/j.pubrev.2012.05.005>
- Capriotti, P., Zeler, I., & Oliveira, A. (2019). Dialogic communication 2.0. Analysis of interactions in Latin American organizations. *Revista Latina de Comunicación Social*, 74(8), 1094–1113. <https://doi.org/10.4185/RLCS-2019-1373>
- Chen, C. (2017). Science Mapping: A Systematic Review of the Literature. *Journal of Data and Information Science*, 2(2), 1–40. <https://doi.org/10.1515/jdis-2017-0006>
- D'angelo, V. (2020). The value of management in the digitalisation era: Evidence from an Italian museum. *International Journal of Digital Culture and Electronic Tourism*, 3(1), 94. <http://dx.doi.org/10.1504/ijdcet.2020.105904>
- Davis, J. F. (2013). Realizing marketplace opportunity: How research on the black consumer market influenced mainstream marketers, 1920-1970. *Journal of Historical Research in Marketing*, 5(4), 471–493. <https://doi.org/10.1108/JHRM:02-2013-0006>
- De Las Heras-Pedrosa, C., Iglesias-Sánchez, P. P., Jambrino-Maldonado, C., López-Delgado, P., & Galarza-Fernández, E. (2022). Museum communication management in digital ecosystems. Impact of COVID-19 on digital strategy. *Museum Management and Curatorship*, 1–23. <https://doi.org/10.1080/09647775.2022.2111335>
- De Las Heras-Pedrosa, C., Jambrino-Maldonado, C., Iglesias-Sánchez, P. P., & Lugo-Ocando, J. (2019). Importancia de las relaciones con los públicos en la reputación en un destino turístico inteligente. Propuesta de un modelo sostenible. *Revista Internacional de Relaciones Públicas*, 9(17), 117–138. <https://doi.org/10.5783/rirp-17-2019-07-117-138>
- De Las Heras-Pedrosa, C., Jambrino-Maldonado, C., Rando-Cueto, D., & Iglesias-Sánchez, P. P. (2022). COVID-19 Study on Scientific Articles in Health Communication: A Science Mapping Analysis in Web of Science. *International Journal of Environmental Research and Public Health*, 19(3), 1705. <https://doi.org/10.3390/ijerph19031705>

Ebrahimi, P., Hajmohammadi, A., & Khajeheian, D. (2020). Place branding and moderating role of social media. *Current Issues in Tourism*, 23(14), 1723–1731. <https://doi.org/10.1080/13683500.2019.1658725>

Fernández-Hernández, R., Vacas-Guerrero, T., & García-Muiña, F. E. (2021). Online reputation and user engagement as strategic resources of museums. *Museum Management and Curatorship*, 36(6), 553–568. <https://doi.org/10.1080/09647775.2020.1803114>

Guillory, J. E., & Sundar, S. S. (2014). How Does Web Site Interactivity Affect Our Perceptions of an Organization? *Journal of Public Relations Research*, 26(1), 44–61. <https://doi.org/10.1080/1062726X.2013.795866>

Gürel, E., & Kavak, B. (2010). A conceptual model for public relations in museums. *European Journal of Marketing*, 44(1–2), 42–65. <https://doi.org/10.1108/03090561011008600>

Handayani, S., Wiyono, N., Nur Dewi Kartikasari, M., Suparyanti, E. L., Moelyo, A. G., Muhammad, F., & Iman, A. F. (2022). Visual science mapping and future direction of pediatric acupuncture: A bibliometric analysis from Scopus database and VOSviewer. *Bali Medical Journal*, 11(3), 1572–1581. <https://doi.org/10.15562/Bmj.V11i3.3747>

HOU, Y., & YU, Z. (2023). A Bibliometric Analysis of Synchronous Computer-Mediated Communication in Language Learning Using VOSviewer and CitNetExplorer. *Education Sciences*, 13(2). <https://doi.org/10.3390/educsci13020125>

International Council of Museums (ICOM). (2020). *Museums, museum professionals and COVID-19* (p. 22). International Council of Museums. <https://icom.museum/wp-content/uploads/2020/05/Report-Museums-and-COVID-19.pdf>

Jambrino-Maldonado, C., Rando-Cueto, D., Núñez-Sánchez, J. M., Iglesias-Sanchez, P. P., & De Las Heras-Pedrosa, C. (2022). Bibliometric Analysis of International Scientific Production on the Management of Happiness and Well-Being in Organizations. *Social Sciences*, 11(7), 272. <https://doi.org/10.3390/socsci11070272>

Johnson, M. A., & Sink, W. (2013). Ethnic museum public relations: Cultural diplomacy and cultural intermediaries in the digital age. *Public Relations Inquiry*, 2(3), 355–376. <https://doi.org/10.1177/2046147X13491762>

Jung, Y. (2015). Diversity Matters: Theoretical Understanding of and Suggestions for the Current Fundraising Practices of Nonprofit Art Museums. *Journal of Arts Management Law and Society*, 45(4), 255–268. <https://doi.org/10.1080/10632921.2015.1103672>

Losada-Díaz, J. C., & Capriotti, P. (2015). The communication of art museums in facebook: Comparison of key international and Spanish institutions. *Palabra Clave*, 18(3), 889–904. Scopus. <https://doi.org/10.5294/pacla.2015.18.3.11>

Martínez, M. A., Herrera, M., Contreras, E., Ruíz, A., & Herrera-Viedma, E. (2015). Characterizing highly cited papers in Social Work through H-Classics. *Scientometrics*, 102(2), 1713–1729. <https://doi.org/10.1007/s11192-014-1460-y>

Maryanti, R., Nandiyanto, A. B. D., Hufad, A., Sunardi, S., Al Husaeni, D. N., & Al Husaeni, D. F.

(2023). A computational bibliometric analysis of science education research using vosviewer. *Journal of Engineering Science and Technology*, 18(1), 301–309. [http://jestec.taylors.edu.my/Vol%2018%20Issue%201%20February%20%202023/18\\_1\\_20.pdf](http://jestec.taylors.edu.my/Vol%2018%20Issue%201%20February%20%202023/18_1_20.pdf)

Mas, J. M., Arilla, R., & Gómez, A. (2021). Facebook as a Promotional Tool for Spanish Museums 2016–2020 and COVID Influence. *Journal of Promotion Management*, 27(6), 812–831. <https://doi.org/10.1080/10496491.2021.1888179>

Najda-Janoszka, M., & Sawczuk, M. (2021). Interactive communication using social media – the case of museums in Southern Poland. *Museum Management and Curatorship*, 1–20. <https://doi.org/10.1080/09647775.2021.1914135>

Poulopoulos, V., & Wallace, M. (2022). Digital Technologies and the Role of Data in Cultural Heritage: The Past, the Present, and the Future. *Big Data and Cognitive Computing*, 6(3). <https://doi.org/10.3390/bdcc6030073>

Raimo, N., De Turi, I., Ricciardelli, A., & Vitolla, F. (2021). Digitalization in the cultural industry: Evidence from Italian museums. *International Journal of Entrepreneurial Behavior & Research, ahead-of-print*(ahead-of-print). <https://doi.org/10.1108/IJEER-01-2021-0082>

Rando-Cueto, D., Nuñez-Sánchez, J. M., Jambrino-Maldonado, C., Iglesias-Sánchez, P., & De Las Heras-Pedrosa, C. (2023). Bibliometric analysis and network mapping of the scientific literature on the influence of public relations on well-being and happiness. *Anàlisi*, 67, 65–86. <https://doi.org/10.5565/rev/analisi.3562>

Rusillo, S. (2019). The use of the museum as a public relations agency by sponsors: The role of the media. *Communication & Society-Spain*, 32(3), 51–66. <https://doi.org/10.15581/003.32.3.51-66>

Sánchez-Núñez, P., De Las Heras-Pedrosa, C., & Peláez, J. I. (2020). Opinion Mining and Sentiment Analysis in Marketing Communications: A Science Mapping Analysis in Web of Science (1998–2018). *Social Sciences*, 9(3). <https://doi.org/10.3390/socsci9030023>

UNESCO. (2023). *Museos*. Museos. <https://es.unesco.org/themes/museos>

Van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, 84(2), 523–538. <https://doi.org/10.1007/s11192-009-0146-3>

Van Eck, N. J., & Waltman, L. (2017). Citation-based clustering of publications using CitNetExplorer and VOSviewer. *Scientometrics*, 111(2), 1053–1070. <https://doi.org/10.1007/s11192-017-2300-7>

Van Riel, C. (2021). Los museos, un factor clave en el turismo de calidad. *Foro CM Málaga Ciudades y Museos*. Inspirar el futuro, Málaga. Spain.

Zeler, I., & Capriotti, P. (2017). Facebook as a Public Relations tool in companies: Information of business and the CSR in the world's most reputable companies. *Revista Internacional de Relaciones Públicas*, 7(14), 145–164. <https://doi.org/10.5783/RIRP-14-2017-09-145-164>

